

AMENDMENT(S) TO THE CLAIMS

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) ~~The ink jet printer of claim 11,~~ An ink jet printer, comprising:
a printhead carrier; and

a controller communicatively coupled to said printhead carrier for producing a plurality of
fire signals, each fire signal of said plurality of fire signals being asserted at a different timing
5 than other of said plurality of fire signals, said controller combining said plurality of fire signals
to form a composite fire signal that maintains said different timing, and wherein each fire signal
of said plurality of fire signals is used to separately address a respective corresponding group of
nozzles,

wherein said controller forms a plurality of composite fire signals, each including a
10 corresponding plurality of fire signals; and

wherein said plurality of composite fire signals is associated with a plurality of ink colors.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Previously Presented) A printhead cartridge for an ink jet printer, comprising:
at least one ink reservoir; and
a printhead fluidly coupled to said at least one ink reservoir, said printhead
including:

- 5 a plurality of nozzles for ejecting ink;
 a plurality of actuators associated with said plurality of nozzles;
 an actuator firing logic circuit in communication with said plurality of actuators for
selectively energizing said plurality of actuators; and
 a decoder circuit in communication with said actuator firing logic circuit, said
10 decoder circuit including at least one input for receiving at least one composite fire signal,
wherein said at least one composite fire signal represents a plurality of fire signals, and wherein
each fire signal of the plurality of fire signals is used to separately address a respective
corresponding group of the plurality of nozzles.

19. (Original) The printhead cartridge of claim 18, wherein said decoder circuit decodes
each said composite fire signal into a plurality of actuator fire signals.

20. (Original) The printhead cartridge of claim 18, wherein said at least one composite
fire signal includes a plurality of color composite fire signals.

21. (Original) The printhead cartridge of claim 20, wherein said plurality of color
composite fire signals is associated with a plurality of ink colors.

22. (Previously Presented) The printhead cartridge of claim 18, wherein each said
composite fire signal includes a plurality of actuator fire signals, each actuator fire signal of the
plurality of fire signals including a prefire signal and mainfire signal.

23. (Previously Presented) The printhead cartridge of claim 18, wherein each said
composite fire signal includes a plurality of actuator fire signals, and at least one said plurality of

actuator fire signals is interlaced with an other of said plurality of actuator fire signals to form the at least one composite fire signal.

24. (Previously Presented) A printhead for an ink jet printer, comprising:

a plurality of nozzles for ejecting ink;

a plurality of actuators associated with said plurality of nozzles;

5 an actuator firing logic circuit in communication with said plurality of actuators for selectively energizing said plurality of actuators; and

a decoder circuit in communication with said actuator firing logic circuit, said decoder circuit including at least one input for receiving at least one composite fire signal, wherein said at least one composite fire signal represents a plurality of fire signals, and wherein each fire signal of
10 the plurality of fire signals is used to separately address a respective corresponding group of the plurality of nozzles.

25. (Original) The printhead of claim 24, wherein said decoder circuit decodes each said composite fire signal into a plurality of actuator fire signals.

26. (Original) The printhead of claim 24, wherein said at least one composite fire signal includes a plurality of color composite fire signals.

27. (Original) The printhead of claim 26, wherein said plurality of color composite fire signals is associated with a plurality of ink colors.

28. (Previously Presented) The printhead of claim 24, wherein each said composite fire signal includes a plurality of actuator fire signals, each actuator fire signal of the plurality of fire signals including a prefire signal and mainfire signal.

29. (Previously Presented) The printhead of claim 24, wherein each said composite fire signal includes a plurality of actuator fire signals, and at least one of said plurality of actuator fire

signals is interlaced with an other of said plurality of actuator fire signals to form the at least one composite fire signal.

30. (Canceled)

31. (Canceled)

32. (Canceled)